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CH2M HILL
Site Safety Plan

A. General Information

CH2M HILL No. W65005.00
EPA NO. 0145VA5.0

Site: Johns-Manville Waukegan
Location: Waukegan, IL
Plan Prepared by: M. A. Chillingworth Date: 7/7/83
Revised by: J.R. Schneider Date: 7/19/83
Approved by: M.A. Chillingworth Date: 7/19/83

Objectives: Site visit as part of RAMP preparation

Proposed Date of Investigation: July 19, 1983

Background review: Complete _____ Preliminary x
Documentation/Summary: Overall Hazard: Serious _____
Moderate x Low _____ Unknown _____

B. Site/Waste Characteristics

Waste Type: Solid

Characteristics: Carcinogenic

Facility Description:

The site is a Johns-Manville manufacturing plant which includes a 120 acre landfill and a series of 6-7 lagoons. The plant is operational and material being manufactured include K-flexboard sheet transite, roofing and shingles, refractory and T-12 insulation. In the past, the plant had produced asbestos-cement pipe and asbestos-containing roofing paper, but now, the vast majority of the products do not contain asbestos. The facility generates less than 100 kg of friable asbestos per month. Wastes, including asbestos, have been dumped on the site by Johns-Manville since the 1920's. Piles of material on site are believed to contain friable asbestos and air samples collected in 1973 and 1982 show elevated asbestos levels in air.

Principal Disposal Method (type and location):

The active landfill area is a pit approximately 50 feet in diameter and 50 feet deep. Off-spec products and wastes have been buried or piled on a 120 acre area. Liquid effluents run through a series of 6-7 lagoons.

Unusual Features:

High probability of extensive asbestos contamination of soil throughout the site.

Status: Active.

History:

Facility has produced asbestos products since the 1920's. Documentation of airborne asbestos from the site dates to 1973. Findings of chrysotile asbestos fibers upwind from the site in a 1982 FIT investigation indicate widespread movement. The nearest residence is 1/4 mile away and a high school is about 1 1/2 miles away.

C. Hazard Evaluation

Permissible Exposure Limits:

The allowable 8-hour time weighted average airborne concentration of asbestos fibers is 2 fibers per cubic centimeter. The analytical method specified for this standard uses phase contrast microscopy to count all fibers longer than 5 micrometers. Given the historical documentation of airborne asbestos fibers, there is a high probability that ambient levels onsite may exceed the PEL. Personal protection will be required for all work onsite or downwind from the site. Previous experience indicates that asbestos is very probably the only hazardous material on the site. Windy conditions generally prevail and would disperse any organic vapors on the site.

D. Site Safety Work Plan

Perimeter Establishment:

Map/sketch attached: Yes. Site Secured: No.
Perimeter identified? Yes. Zones of Contamination identified? Yes, most of the site perimeter is fenced.

PERSONAL PROTECTION

Level of Protection: C

Modifications:

No modification to the personal protective level will be allowed unless monitoring for asbestos fiber conclusively demonstrates a level below 1 fiber per cubic centimeter. Protective clothing and equipment include: Tyvek coveralls with attached booties and hood, steel toe, steel shank

rubber boots, disposable booties, disposable surgical gloves, outer rubber gloves, MSA Ultra Twin respirator with Type GMC-H filters. A hard hat may be required by J-M. A radiation badge is to be worn.

Surveillance equipment and materials:

If more than one day will be spent at the site, then asbestos monitoring, using personal sampling pumps and appropriate filter cassettes, will be required.

Decontamination procedures:

The major concern during decontamination will be to prevent re-entrainment of settled fibers on clothing, gloves and boots.

Personnel coming off the site will first deposit the personal samplers and any equipment on a plastic drop cloth. Next, they will proceed to the outer boot and glove removal station. Booties and outer gloves are removed (a stool should be provided for this) and disposed of in a plastic trash bag. (The masking tape around boot and glove tops is also to be removed and placed in the trash bag). Proceeding upwind, at the next station, the Tyvek suits are removed. This must be done carefully so as not to release fibers. Basically, the suit should be peeled off so that it is inside out when it is off. A plastic-bag-lined container is to be provided for placing discarded suits into. At least 20 feet upwind of the suit removal is the respirator station. Here the respirator is removed. The cartridges are to be removed from the mask, dunked in a container of water to thoroughly wet the filter and then placed in a plastic bag for disposal. The mask is then to be placed in a sealed container for cleaning at the warehouse. (The safety coordinator, or delegate, will actually disinfect and rinse the face mask, inspecting the gaskets and valves during this operation.) After depositing the face mask, the inner gloves are removed and placed in a plastic bag for disposal. The last station is a soap and water wash of hands and face.

This procedure for decontamination must be followed for every break and at the end of the workday. Additional requirements for decontamination at the end of the workday are that each person must take a shower as soon as possible after leaving the site. All clothing worn on the site must be segregated from other clothing and washed separately. Clothing worn on-site must be washed before rewearing.

The safety coordinator shall ensure decontamination of all equipment (during which he/she shall wear Level C). The field decontaminated respirator masks are to be dismantled

for inspection and recleaning at an interior location with hot and cold running water. This is to be done each night.

The plastic trash bags filled with asbestos-contaminated materials can be consolidated into one or more larger containers and must be labelled with a readily visible and legible sign which states:

Caution
Contains Asbestos Dust
Avoid Creating Dust
Breathing Asbestos Dust May Cause
Serious Bodily Harm

The wording of this label is prescribed by OSHA. EPA must be consulted regarding approved disposal of this material

Site Entry Procedures:

Entry to the site should be done from an upwind direction in Level C attire. Eating, drinking or smoking is not to be permitted anywhere on the site. Any activity other than a simple walk-through will require modifications to this health and safety plan and reapproval.

<u>Team Member</u>	<u>Responsibility</u>
Jim Schneider	Team Leader
Mark Lepkowski	Safety Coordinator
Roberta Fine	Equipment Operation

Work Limitations:

Daylight hours. Prior to site entry, emergency routes and telephone numbers should be reviewed.

Investigation-Derived Material Disposal:

Contaminated disposables are to be sealed in plastic bags, properly labelled and disposed in accordance with RCRA regulations. Approval must be secured in advance to dispose these materials in the J-M landfill.

E. Emergency Information

Local Resources

Ambulance: Safe-way Ambulance Service
632-2222

Hospital Emergency Room: St. Therese Hospital
2615 Washington
578-2470

Poison Control Center: St. Therese Hospital
578-2470

Police: Waukegan - 623-2131 (Emergency)

Fire: Waukegan - 623-2121 (Emergency)

Airport: Waukegan Memorial
3500 McAree Road
244-0055

Explosives Unit: Waukegan Police
623-2131 (Emergency)

J-M Plant Manager: Jim Scott
623-2900

EPA Contact: Norm Niedergang
(312) 886-3011

Site Resources

Telephone: J-M Plant - 623-2900

Radio: None

Emergency Contacts

Dr. Raymond Harbison (U. of Arkansas) - TOX-LINE
(501) 661-5766
(501) 370-8263 (24 hours)

Safety Officer: Mary Anne Chillingworth
(703) 625-5200 (office)
(703) 476-0882 (home)

Project Manager: Jim Schneider
(503) 224-9190 (office)
(503) 643-8062 (home)

REM Office: (PDX) (503) 224-9190
(GLO) (414) 272-2426

Ecology and Environment - Dave Dahlstrom
(716) 620-4491

PHOTO LOG
SITE VISIT - JULY 19, 1983
JOHNS-MANVILLE SALES CORPORATION
01-5VA5.0, W65005.00

Photographed by: James R. Schneider, RSPM, CH2M HILL
Camera: Mamiya Sekor Electronic Autofocus
Lens: Integral with Camera
Film: Kodacolor VR200, ASA 200

Refer to the attached site map for approximate location and direction of photographs.

<u>Photo</u>	<u>Description</u>
1	(Spoiled loading camera.)
2	(Partially spoiled loading camera.)
3	Friable asbestos disposal pit, view to northeast.
4	Friable asbestos disposal pit, view to northeast.
5	Friable asbestos disposal pit, view to east.
6	Friable asbestos disposal pit, view to southeast. The piles of gray material were identified by Johns-Manville staff as waste granulated shale from the roof shingle manufacturing process, and dredged from a settling basin onsite.
7	Caution sign at friable asbestos disposal pit, view to east.



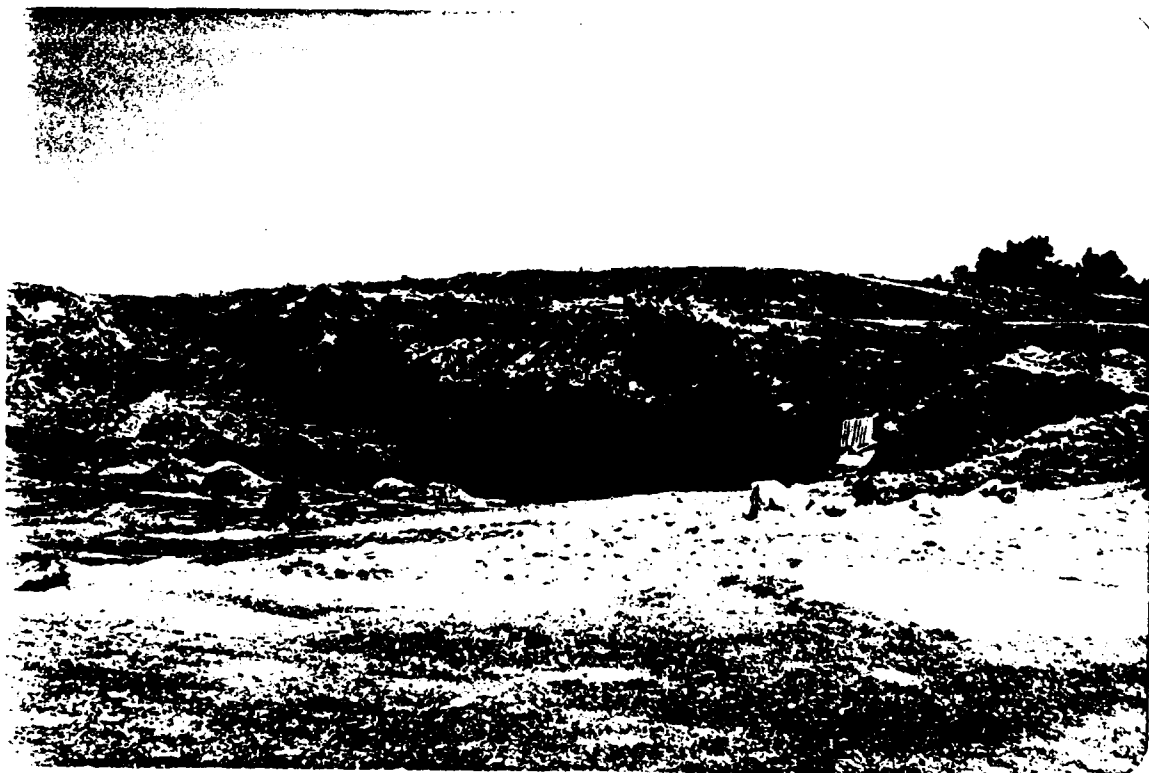
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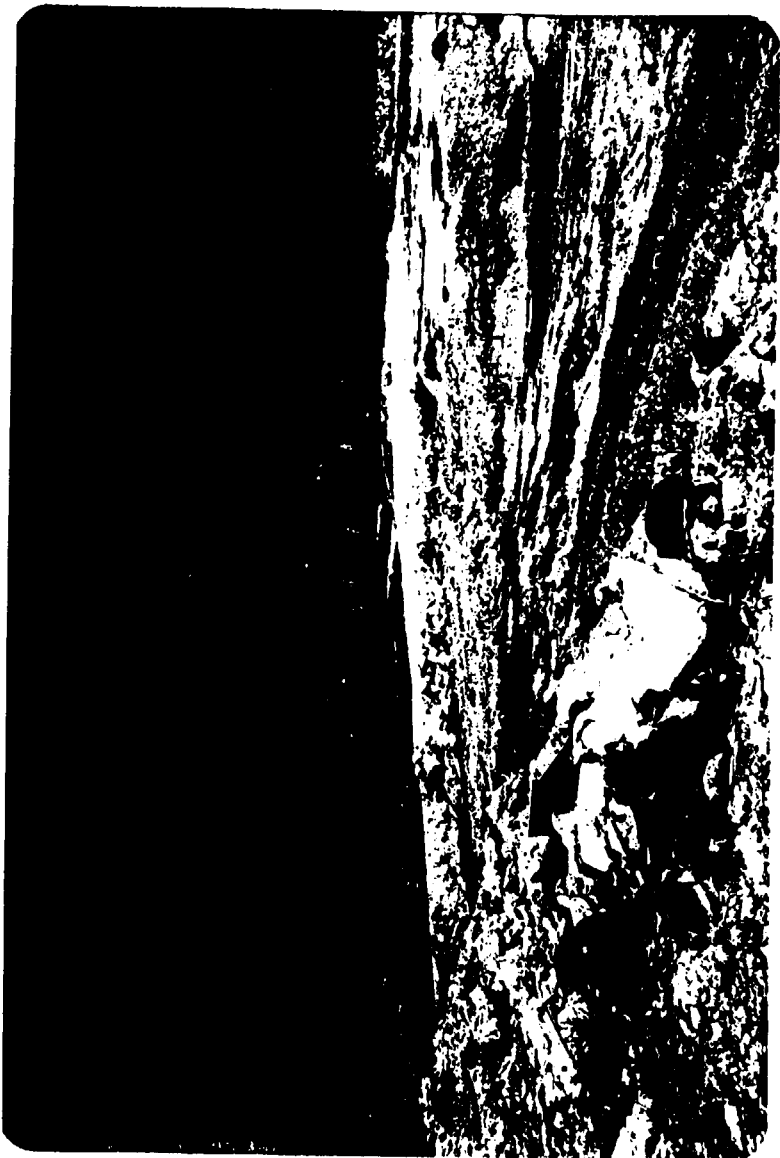
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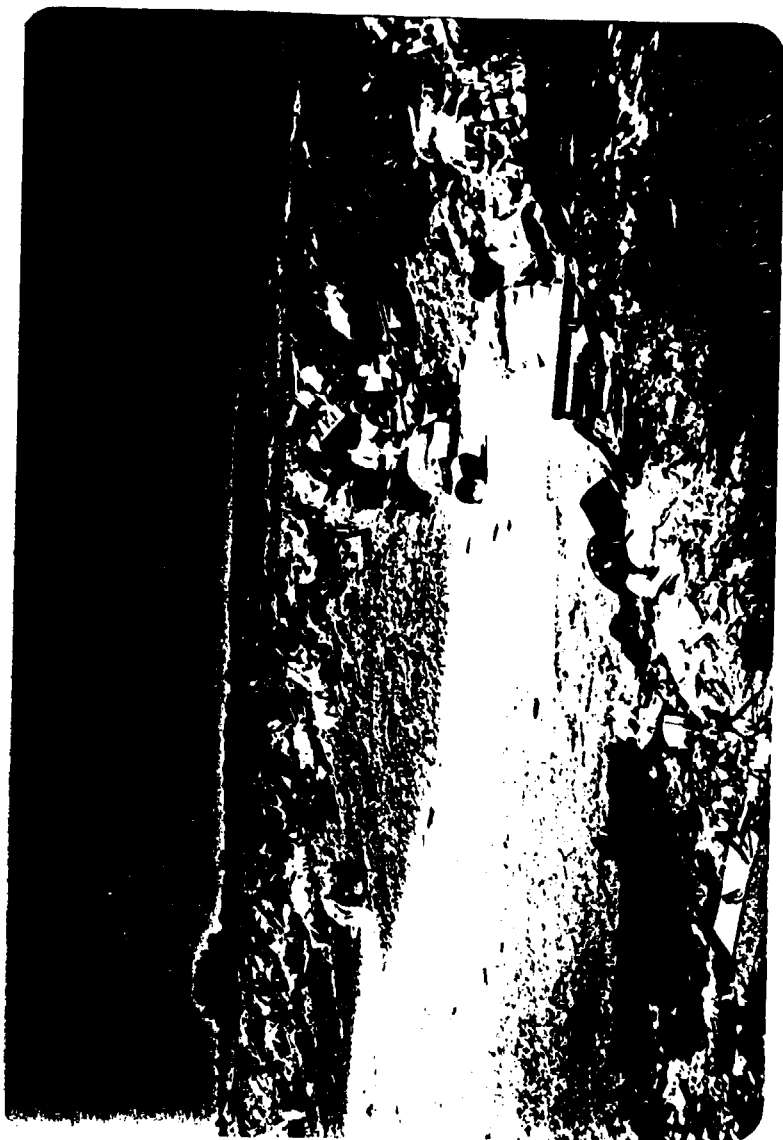


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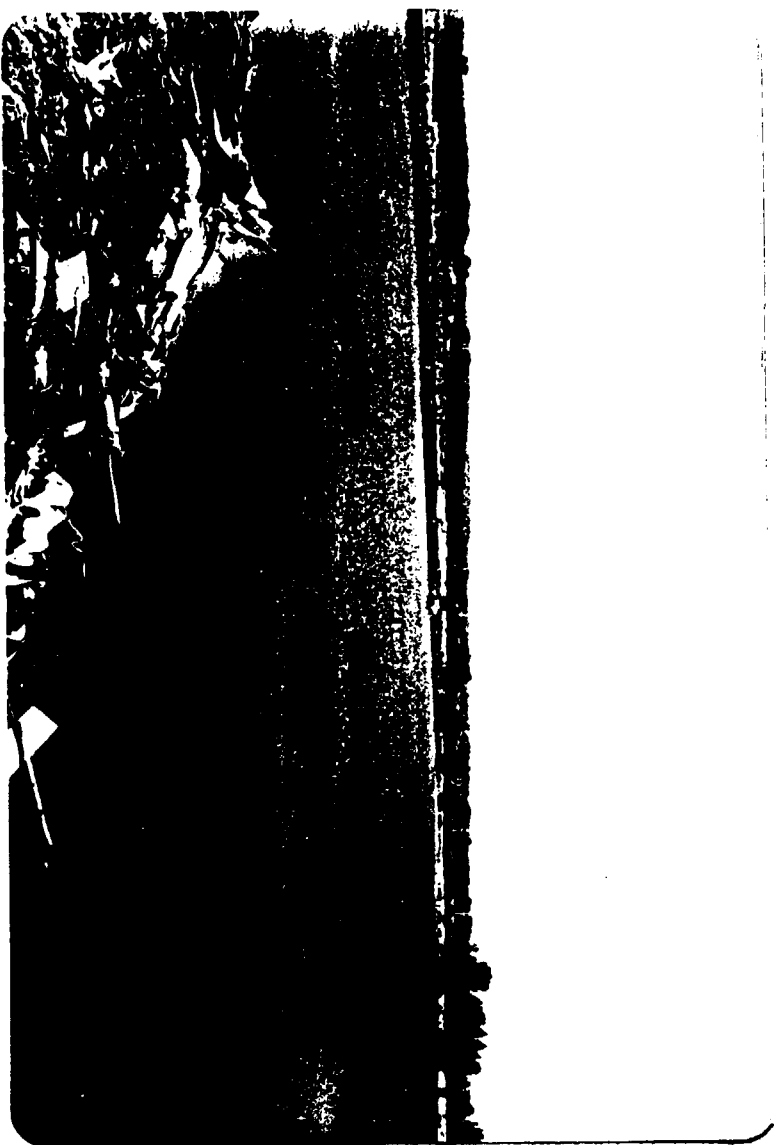


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